Science Toolkit: Grade 8 Objective 1.B.1.b

Student Handout: Science: Grade 8 Objective 1.B.1.b

Standard 1.0 Skills and Processes

Topic B. Applying Evidence and Reasoning

Indicator 1. Review data from a simple experiment, summarize the data, and construct a logical argument about the cause-and-effect relationships in the experiment.

Objective b. Explain that what people expect to observe often affects what they actually do observe and that scientists know about this danger to objectivity and take steps to try to avoid it when designing investigations and examining data.

Selected Response (SR) Item

Question

A scientist will repeat an investigation many times before finally making a conclusion.

Which reason best explains why a scientist repeats an investigation?

A. Repetition is needed to prove a hypothesis.
B. Repetition is required to publish a conclusion.
C. Repetition ensures the accuracy of obtained data.
D. Repetition helps scientists remain objective about observations.

Correct Answer

C. Repetition ensures the accuracy of obtained data.

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